Navy Region, Mid-Atlantic
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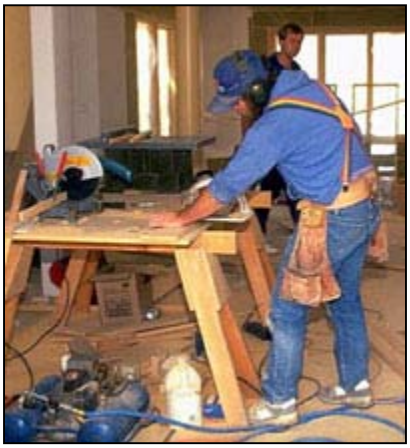
Serving NAS Oceana, Dam Neck Annex, Naval Air Landfing Field Fentress and Dare County Bombing Range
SAFETYGRAM

FEBRUARY 2005

Back Belts: No "Support" from The Surgeon General or DoD



Manufacturers often claim that back belts reduce injury risk by increasing pressure inside the abdomen, which stabilizes the back by stiffening the torso. However, recent studies reveal that the increased intra-abdominal pressure is associated with abdominal muscle contraction that, in turn, increases compressive force on the lower spine. Furthermore, it appears that back belt usage diminishes the amount of work produced by the back extensor muscles.

Back belt use is known to decrease spinal muscle activity. This decrease in muscle activity can lead to spinal muscle weakness if back belts are worn for prolonged periods.

Another known hazard of back belt use is increased cardiovascular risk. The mechanical compression of the back belt on the abdomen forces blood out of the trunk and into the rest of the body.

Other considerations regarding back belts are back injury rates and back injury severity.

- Back injury rates are highest among users who wear a back belt then discontinue its use.
- People who suffer a back injury while wearing a back belt have the most severe injuries.
- "Superman Syndrome," the mistaken belief that wearing a back belt makes you stronger, is a concern.

If back belts are distributed to people without a back injury, it should be done with care. The user should know what a back belt can and cannot do and the user should only wear the belt when performing a manual material handling activity. If back belts are prescribed as part of a physician's treatment plan, the worker's workstation should be evaluated to ensure the physical demands of the job do not exacerbate the back injury.

Conclusion

Multiple research organizations agree that there is not enough evidence to suggest that back belts reduce injury rates or prevent back pain for people who lift or move materials.

Medical professionals and ergonomists agree that you should wear a supportive belt only for the first few days or weeks after a severe back injury while the area is healing. If you have never had a back injury, it is best to avoid a back belt entirely.

Blanket use of back belts is not endorsed by The Surgeon General or the Department of Defense.

For more complete information on back belt usage, read the January 2005 issue of the DoD Ergonomics Working Group NEWS, or visit www.ergoworkinggroup.org.

Also, see the Back Injury Prevention and Ergonomics Lesson Plans on our website at http://www.nasoceana.navy.mil/safety/Training/Lesson%20Plans/LessonPlans.htm.

HELP News You Can Use

So far in FY-05, 35% of NAS Oceana's mishaps have resulted in bruised, pulled, twisted or strained muscles.

The following describes common risk factors (such as reaching and tilting the head back) that may increase the chance of injury and pain to the shoulder, neck, and upper back. General solutions that may minimize the possibility of injury and pain are also presented.

Working with the Torso Bent or Twisted

Potential Hazards:

- When the torso is bent forward or to the side, the weight of the upper body must be supported as well as any other objects held in the hands. Employees who must work for prolonged periods of time in a bent-at-the-waist posture put significant strain on the back even if they are not lifting significant weight.

- Twisting and bending pulls the back out of its normal alignment. This can pinch and alter the discs, making them more susceptible to bulging and rupture. This also forces the muscles of the back to work singularly instead of in tandem, making them more susceptible to overexertion and strain.

- Finally, maintaining static postures for prolonged periods slows nutritional flow and removal of wastes to the muscles and tendons. This can create fatigue making them more susceptible to injury.

Possible Solutions:

- Keep the load directly in front of the body. Avoid reaching to the side or twisting when lifting.

- Keep the load close to the body when lifting.

- Use automation whenever possible to reduce repetition and duration of lifting tasks performed in awkward postures.

- Reposition loads so most lifts can be performed at about waist height with the elbows in close to the body.

- Use positioning devices, such as scissor lifts, lifter/tilters and palletizers, to raise and position loads so they can be lifted while close to the body with the back in a straight alignment.

- Use devices with rotating platforms so loads can be easily positioned close to the body before lifting.

- Use elevating and tilting bins, which elevates the load and keeps it close to the body.

Whole Body Vibration

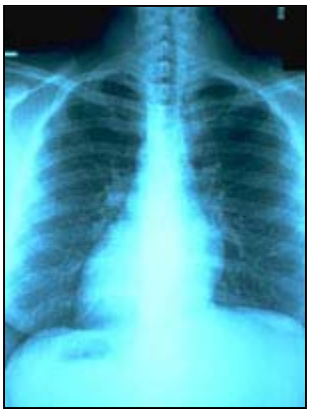
Potential Hazards:

- Whole body vibration occurs while standing or seated in vibrating environments, such as trucks or heavy machinery.
- Whole body vibration in a seated position has been found to increase the prevalence of reported low back pain. Operations such as tractor driving, forklift operating, truck driving, and driving earth moving machines have been found to result in increased back pain.

Possible Solutions:

- Provide vibration isolation for operator seats.
- Provide padded seats with dampening material.
- Remove debris and repair damage to flooring. Smoother driving surfaces will reduce vibration.

Source: www.osha.gov



Smoking: It's Never Too Late to Quit

By quitting smoking you reduce your risk for heart disease, stroke, osteoporosis, lung disease, infertility, a number of cancers, and premature skin wrinkles.

The Benefits of Quitting Smoking

• 20 minutes after quitting—Your blood pressure drops back to normal.
• 8 hours after quitting—The carbon monoxide in your blood drops to normal.
• 24 hours after quitting—Your chance of having a heart attack goes down.
• 2 days after quitting—You can taste and smell things better.
• 2 weeks to 3 months after quitting—You have better circulation and your lungs work better.
• 1 to 9 months after quitting—Coughing, sinus congestion, fatigue, and shortness of breath decrease.
• 1 year after quitting—You reduce your risk for heart disease by half.
• 5 to 15 years after quitting—Your risk of having a stroke is the same as someone who never smoked.
• 10 years after quitting—Your risk of lung cancer is nearly the same as someone who never smoked.

Steps to Take to Quit

Quitting smoking is not easy, but it can be done. Often smokers have to make several attempts to quit before they can quit for good.

• Pick a date to stop smoking.
• Tell family, friends, and coworkers that you plan to quit.
• Plan for challenges and other things you can do when you get the urge to smoke.
• Remove cigarettes from your home, car, and workplace
• Talk to your health care provider about medications to help you quit.
• Get more help if you need it by joining a quit-smoking program or support group in your community.

For more information on smoking and how to quit:

National Cancer Institute
Smoking Quitline
http://www.smokefree.gov
Phone: 877-44U-QUIT,TTY: 1-800-332-8615

CDC Tobacco and Prevention Source
http://www.cdc.gov/tobacco
"You Can Quit Smoking Consumer Guide"
http://www.cdc.gov/tobacco/quit/canquit.htm

American Cancer Society
"Guide to Quitting Smoking"
http://www.cancer.org
Call 1-800-ACS-2345 for the number of the telephone "quitline" or other support in your area.

American Lung Association
Freedom From Smoking® free online smoking cessation program
http://www.lungusa.org

Sources: American Cancer Society, www.cancer.org, National Cancer Institute, www.smokefree.gov.

MISHAPS REPORTED IN JANUARY

1. Service member was hit by another vehicle that ran a red light. (off-duty, 3 lost work days).

2. Employee slipped on ice and scraped her right hand and thumb. (on-duty, no lost work days).

3. Service member was working on a CASS Test Station and received a minor shock to his left hand. (on-duty, no lost work days).

4. Service member lost control of his car and landed in the ditch. (off-duty, no lost work days).

5. While using a pneumatic hammer to shave down a layer of concrete at a paint booth door, his wrist became inflamed. (on-duty, no lost work days).

6. Service member was hit by a falling brick while transiting past a construction area in a passageway. (on-duty, 1 lost work day).

7. While trying to get some tools from his toolbox, service member felt a sharp pain in the left side of his chest, which turned out to be muscle spasms. (on-duty, no lost work days).

8. While replacing a tacking pran glove, service member used a paper towel to push a needle through three layers of material. The needle penetrated his finger. (on-duty, no lost work days).

9. While dismounting crash firefighting apparatus during a ground emergency, wind caught the door and caused the employee to fall from the vehicle, injuring his elbow. (on-duty, no lost work days).

10. Employee was entering a building through a door when another employee was exiting the same door, causing her finger to get caught in the door. (on-duty, no lost work days).

Lost Work Day - Loss of at least one full workday subsequent to the date of mishap.

Lets be save out there!!

REGIONAL SAFETY OFFICE
1750 Tomcat Blvd. Suite 2170
Virginia Beach VA 23460-2122
Oceana Bldg 230 • Dam Neck Annex Bldg 585
OC- (757) 433-2692 • fax (757) 433-2694 • DSN 433
DN- (757) 492-6630 • fax (757) 492-7411 • DSN 492
www.nasoceana.navy.mil/safety